ABSTRACT

The object of the present invention is a process of preparing a crystal, which comprises :

loading a crucible with a mixture of the appropriate starting material which contains at least one oxide as impurity, and an effective and non-excess amount of at least one fluorinating agent which is solid at ambient temperature,

melting said mixture within said crucible,

growing the crystal, by controlled cooling of the molten mixture,

controlled cooling of said crystal to ambient temperature,

recovering said crystal; and

which is characterised in that the oxide(s) resulting from the reaction between said fluorinating agent(s) and said oxide(s), the impurity or impurities, can be discharged from said crucible, in view of the dimensions of said crucible and of the intrinsic permeability of the material constituting it.

Said process is particularly adapted for preparing (mono)crystals of CaF₂ in graphite crucibles.